

IN THE DRAWINGS:

The attached sheet of drawings includes changes to Figure 8. This sheet, which includes Figure 8, replaces original sheet. The changes corrects an obvious error- in step 24, "SENSOR S4" on the last line should have been "SENSOR S5".

REMARKS

The Office Action, mailed November 6, 2008, has been received and its contents carefully noted. The then pending claims, claims 1, 6, 7, 9 and 21-22, were rejected. By this Response, claims 1, 6, 7, 9, and 21-22 have been amended. Support may be found in the specification and the claims as originally filed, especially Figures 5, 7 and 8 and the text describing each appearing in the specification.¹ Accordingly, reconsideration in light of the foregoing amendments to the claims and the remarks, which follow, are respectfully requested.

Rejection under 35 U.S.C. 102(b)

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (US 2002/0069025). Applicants respectfully traverse.

Claims 1 and 9 have been amended to recite either the steps or elements required in the disclosed calibration process. The calibration involves temperature measurement illustrated in Figure 5 and data treatment described in detail starting in the last paragraph on page 18 and continuing onto page 25. (The disclosed calibration measure does not require a direct measure of the temperature of the treated object or a determination of a film thickness.) The resultant calibrated thermal model (M2) is stored and subsequently used in the performance of the treatment process.

These steps and elements are not suggested or taught by Wang. Wang does not determine a correction value which includes the measure of a difference between the temperature of one of the temperature sensors located closest to the inside heater estimated by using the thermal model and that actually measured. Wang employs a film thickness measure. See, for

¹ The calibration is supported by paragraphs [0069] to [0075] of the specification. It includes:

- determining a relationship between an amount of change (ΔT_i) in the temperature of one (e.g. 32) of the heaters and amounts of change (e.g., $\Delta T_{s1}, \dots, \Delta T_{s5}$) in the measured temperatures of the temperature sensors (S_1, \dots, S_5);
- determining a difference between an estimated temperature of one (e.g., S_4) of the temperature sensors located closest to the heater, which estimated temperature is estimated by using the thermal model, and an actual temperature of said one (e.g. S_4) of the temperature sensors measured by the same; and
- calculating a correction value (e.g., Expression 7) based on the determined relationship and the determined difference. The correction value is applied to the temperature model such that the estimated temperature of said one heater (e.g. 32) estimated by the thermal model is corrected by using the correction value.

example paragraph [0092]. The Wang data treatment is distinct from that disclosed and claimed. See paragraphs [0047] through [0078] of Wang.

For a reference to be anticipatory, it must teach each and every element required by the claims. The claimed data treatment, requisite temperature measurements and subsequent control of the heat treatment based on the corrected estimated temperature are not taught or suggested.

Withdrawal of the rejection is requested.

Rejection under 35 U.S.C. 103(a)

Claims 6-7 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (US 2002/0069025) in view of Muka (US 6,193,506).

Applicants respectfully submit that Muka does not alleviate the deficiencies of Wang. Specifically, Muka fails to teach or suggest Applicants' steps of, or apparatus for, determining the correction value in the way that all the independent claims now describe.

Muka makes no mention of a need to calibrate standard thermal models before their use in thermal treatment apparatus. Thus, Muka alone, or in combination with Wang, does not suggest the claimed invention. The specific comparison of the temperature of the heating element with the temperature measured by the closest temperature sensor is simply not taught or suggested.

Therefore, Applicants also respectfully urge that the claims, as amended, are unobvious. For at least these reasons, the rejection under 35 U.S.C. 103(a) should be withdrawn.

Request for Interview

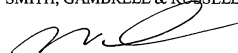
Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefore are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 033082M295.**

Respectfully submitted,
SMITH, GAMBRELL & RUSSELL, LLP



Michael A. Makuch
Reg. No. 32,263

Date: February 17, 2009

1130 Connecticut Ave., NW, #1130
Washington, D.C. 20036
Telephone: (202) 263-4300
Facsimile: (202) 263-4329